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Significance of Metacognitive Variables on Officer Selection

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Introduction

The events which have occurred on the international geopolitical scene in the last years have determined the need of a change of the principles which the national defense policy were traditionally inspired to. The end of the so-called "cold war" in particular, making an aggression from the East very improbable and consequently breaking up the bonds imposed by the culture of the opposite blocks, enabled the emerging of multiple crisis on a regional and local level in opposition to the regained global safety. In this scene, the new defense concept, which has progressively asserted itself, has abandoned the traditional static nature in favor of a more dynamic concept, mainly projected out of the national borders and engaged in safe-guarding the stability of international relationships and in the settlement of the ethnical and religious disputes.

All these aspects have made the mentioned operative context of the military field extremely "turbulent" and unforeseeable. According to tradition, the assigned objectives appear paradoxical (obtaining peace through war operations) and extremely changeable. What's more, the above mentioned tasks are carried out by multinational contingents, which makes the organization more complex.

For all these reasons the military organization requires a major flexibility compared to the past, when objectives and "enemies" were understood and stable concepts, even in the long run. This flexibility of the structures, operative doctrines and organization principles must be, first of all, flexibility of the individuals.

Lastly, it is necessary to underline the transformations in the mentioned social context.

The social post-industrial event, with the definit — at least for the western countries — fading of farming and rural civilization and the general rise

of schooling level, determined the start of a pluralism of values unknown to the monolithic society of the past, characterized by the existence of a differentiated and articulated series of needs, behavior and *modus vivendi*, deeply different if not in contrast with each other.

This situation, which has been synthesized by Max Weber with the expression "polytheism of values" sees the definite decline of the "strong" and universal values which in the pre-modern societies were inspired by the concepts of "courage", "honor", "abnegation" and "solidarity", in favor of the emerging of particularism and individualism inspired by the concepts of auto-affirmation, participation and emancipation.

In such a context, the role of the officer — whose specific prerogative coincides with the command of men — seems particularly critical. In fact, nowadays, the sense of discipline and hierarchical subordination constitute only a functional instrument which needs to be negotiated from time to time and cannot be taken for granted.

The protagonists interacting in the Armed Forces today — especially the young — feature new instances and needs inspired to the sharing of the assigned objectives.

Personnel selection

Every individual that participates in the screening of personnel can be considered, in a certain sense, a cross-section of statistical, physiological, cultural and psychological features variably combined in characterizing both complexity and uniqueness. The taxonomic principles that can be adopted for bringing together such individual characteristics are extremely differentiated and result in being tied to specific cognitive or research needs.

In a simplified manner, it is possible to isolate a further criterion of classification that considers two

distinct orders of requirements and aptitudes. Such orders are not made up of logically equivalent classes but have a relationship between them that we can define as hierarchical. These levels correspond to:

basic level — comprising a combination of physiological requirements, cultural characteristics, acquired cognitive abilities, etc;

metacognitive aspects — comprising a combination of knowledge, self-perception, evaluation ability, that allow the individual to put into effect a particular behavioral strategy rather than another, using a specific basic capability or a coordinated combination of such capabilities.

An individual who is involved in a definite task will be induced to choose a specific behavioral strategy rather than a different one by a series of evaluations elaborated on the task itself, such as:

- somebody else's expectations to which the individual believes to be bound;
- his/her specific, personal goals;
- and the best way in order to achieve them.

All these evaluations are aspects of the so called metacognitive knowledge of the individual and they represent the above mentioned requirements related to the metacognitive aspects level. Therefore:
 $strategy = f(\text{metacognitive knowledge})$

To achieve an optimal performance, in order to accomplish the pre-determined objectives, both levels are necessary, but the most important is the second one — that we can define as the strategic level — which plays a critical role in the cognitive function and determinates the qualitative aspect of the performance itself.

The circumstances of "real life" in which a person normally operates and reacts, in contrast with the conditions used for psychological testing, are not characterized by suggestions — even implicit — with regard to behavior which will be chosen and that, on the basis of the specific individual ability, may or may not lead to the final objective. The critical feature appears, therefore, not to be a specific ability or skill but the strategic talent to use one's own cognitive resources in an efficient manner in function of the specific objective to be attained. An officer in service outside of his normal working environment, for example, no matter how

skilled and precise in shooting (first level), may decide to miss the target and allow the escape of the man with whom, in the future, it will be possible to find an agreement (second level).

In the field of psychodiagnostic we are generally and selectively directed at dealing with the first level of ability discussed earlier. Consequently, it may happen that events belonging to the second level can be completely overlooked or even wrongly interpreted as forms of the first one.

As far as intelligence-measuring is concerned, for example, the instruments commonly used refer to a static and monistic concept; these instruments that:

- cater for the knowledge and ability of the subject in a given moment, consequently evaluating both his present development level and adaptation to his environment;
- on the other hand, they consider intelligence as an isolated factor relating to just that single person, independent from the way in which he/she, in real situations, uses instruments and resources, or is even able to obtain information which could lead him to solving the task.

The complexity of the situations faced by the contemporary man, however, surpass his abilities of independent elaboration and thus calls for an extended and systemic concept of intelligence.

If we define intelligence as the capacity to adapt to different environments that one relates to, or in other words, the ability to acquire information and to use it profitably in different situations, what becomes critical in evaluating intelligence is formulated by the dynamic capability to learn, the ability to interpret and use efficiently instruments, information resources and the available external factors.

The concept of metacognition

We owe to Flavell the term of metacognition, defined by him as:

"Knowledge concerning one's own cognitive processes and products or anything related to them ... [such as] active monitoring and consequent regulation and orchestration of these processes..." and elsewhere *"knowledge and cognition about cognitive phenomenon"*.

Although Flavell is unanimously considered to be the person who directed a systematic way of research and the theoretical reflection on the importance of these variables, it is necessary to observe that the concept of metacognition, even if differently defined, has covered through the years the entire history of modern psychology. The basic idea that underlies the concept of metacognition actually refers to the processes of introspection, self-regulation and self-awareness, that have always been the basis of both research and reflection on psychology.

The difference between metacognitive activity and normal cognitive activity principally lies in its source: metacognitive activity, in fact, is not "activated", it doesn't stem from the "immediate" relationship with external reality but, on the contrary, it is deeply rooted in the internal mental representation of such reality and can include what a person knows and feels about it. For this reason metacognition has sometimes been defined simply as "thinking about thinking", "cognition of cognition". It follows that an indispensable prerequisite for metacognitive activity is the ability to comprehend the exclusively representational nature of one's own and other people thought.

Along with the definitions which refer to the knowledge that the individual possesses about mental functioning, more recent definitions have incorporated into the concept of metacognition the notion of "control of cognitive processes". Such control foresees, in turn, the ability of planning, monitoring, coordinating and testing of the cognitive activity itself, according to the results achieved.

Metacognitive abilities, summing up, appear to be made up of at least two different levels of processes:

- knowledge or metacognitive awareness, that is to say all the knowledge and ideas that an individual possesses about the working of the mind and that can influence such knowledge, (**metacognitive knowledge**) ;
- the executive control of the task, or all the processes of control that preside over the cognitive execution of the task itself, (**metacognitive control processes**).

All this suggests that metacognitive activity is deliberate, planned, intentional, directed to an aim, and is summed up, in synthesis, in an active

control and regulated by cognitive processes to achieve cognitive aims. We could understand the above-mentioned activity, with a concise definition, as the

"ability of the individuals to carry out heuristic cognitive operations on one's own and other people psychological behavior, as well as the ability to utilize such knowledge in a strategic way, for the solution of tasks". (AA,VV., 1997).

From what has emerged it seems we can come to the conclusion that metacognitive variables constitute the most notable elements of cognitive functioning. The same metacognitive variables seem to be responsible for the individual's capacity to contextualize his/her own perception in the environment of the specific social-cultural coordinates of which he/she bears. Such ability appears to be a basic requirement regarding the possibility of affecting an adequate "ethnological decentralization", that allows a flexible adaptation to operative contexts with social and cultural characteristics profoundly different to one's own.

Aptitude Tests

The psycho-diagnostic tests usually employed in the selection of the personnel result, mainly, as an evaluation of those abilities that we have defined as first level. These instruments, in fact, set the candidate in front of stimulus-situations already defined that, in some way, canalize and predetermine the behavior, and, though being able to highlight specific abilities or competence, don't tell us anything about the strategic level of behavior that has been defined as metacognitive. For such a purpose it would be necessary for the applicant to perceive a specific situation or series of events in terms of a "real problem". That, incidentally, is exactly what happens in daily life, but it is hardly reproduceable within the psychological testing in which, as articulated as they may be, the situations appear as a "banalization of the reality", bearing no relationship to an authentic complexity.

Therefore, "problems" never really exist independently of an observer who defines them that way, but are indissolubly linked to the particular individual or collective way to give meaning to the events. It is in fact an operation of a "mental build up" of the situation in terms of the problem or,

however, in terms of a situation that requires an intervention to re-establish, or to establish *ex novo*, the ideal conditions used as a term of comparison. In addition to the influence exerted on cognitive factors, it is permissible to wait for the metacognitive variables to play a noticeable role as far as personality aspects are concerned.

Their influence, at any rate, is certainly felt when analyzing personality questionnaires. These psycho-diagnostic instruments, used in a selection process, demonstrate the influence of what is commonly referred to as "social desirability"—an aptitude to be included in the metacognitive sphere — which is the more or less deliberate attempt to modify one's responses so as to create a hypothetical image of equilibrium and psychological well-being.

Each candidate takes part to a selection, in addition to the various prerequisites and capabilities of the first level, with expectations, self-perception, typical defensive postures, "ideas" regarding the specific context of the selection and the ideal professional figure which is sought-after. It may happen that the results emerging from the personality questionnaires, instead of emphasizing the hypothetical structure of the candidate's personality or shed light on eventual states of emotive discomfort, might be indicative of a candidate's personal style of presentation.

In administering such tests we have occasionally come up against — especially with lower cultural level or culturally disadvantaged candidates — a consistent increase of pathological indicators. Further investigations on such candidates often exclude the presence of symptoms of clinical relevance, showing, on the contrary, the presence of other interpretative hypotheses, generically definable as "meta" ability, focused to the accomplishment of specific goals.

Conclusions

The increasing employment of multinational military contingents in overseas operational contexts imposes the identification of more elaborate and sophisticated psychological profiles. In former times, officers went through selection procedures aiming at sociological and operative realities which today can be considered obsolete.

According to this point of view, we have underlined the importance of the metacognitive variables in the functional self-regulation of behavior, especially in contexts where automatism and behavioral strategies fail.

Our work is to be looked upon as a stepping stone, a stimulus for a discussion that could lead to a re-definition of new operative procedures and diagnostic instruments able to meet today's needs.

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